DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES Office of Structural Materials

Quality Assurance and Source Inspection

Bay Area Branch 690 Walnut Ave.St. 150 Vallejo, CA 94592-1133 (707) 649-5453 (707) 649-5493



Contract #: 04-0120F4

Cty: SF/ALA Rte: 80 PM: 13.2/13.9

File #: 99.28

WELDING INSPECTION REPORT

Resident Engineer: Siegenthaler, Peter **Report No:** WIR-019305 Address: 333 Burma Road **Date Inspected:** 12-Jan-2011

City: Oakland, CA 94607

OSM Arrival Time: 700 **Project Name:** SAS Superstructure **OSM Departure Time:** 1900 **Prime Contractor:** American Bridge/Fluor Enterprises, a JV

Contractor: Zhenhua Port Machinery Company, Ltd (ZPMC) **Location:** Shanghai, China

CWI Name: N/A **CWI Present:** Yes No **Inspected CWI report:** Yes N/A **Rod Oven in Use:** Yes No No N/A Yes N/A N/A **Electrode to specification:** No Weld Procedures Followed: Yes No N/A N/A **Qualified Welders:** Yes No **Verified Joint Fit-up:** Yes No N/A Yes N/A **Approved Drawings:** Yes No **Approved WPS:** No **Delayed / Cancelled:** Yes No N/A

34-0006 **Bridge No: Component: OBG** Trial Assembly

Summary of Items Observed:

On this date Caltrans OSM Quality Assurance (QA) Inspector Mr. S. Manjunath Math was present during the time noted above for observations relative to the work being performed.

This QA Inspector randomly observed the following work in progress:

Orthotropic Box Girder (OBG) at Trial Assembly Areas

East Tower Lift 5 (Grillage) to North Tower Lift 5 (Grillage)

This QA Inspector witnessed final bolt tension verification on bolts connecting the East Tower Lift 5 (Grillage) to North Tower Lift 5 (Grillage) splice plate at Line A. Inspected the bolt tensioning on a random basis and found the tension to be in general compliance. Inspection was performed against the Notification No. 00609 Dated January 12, 2011.

The bolt sizes used were M30 x 130 RC Lot # DH4DM300030 and the final torque value established was 1587 N-m.

The bolt sizes used were M30 x 140 RC Lot # DH4DM300031 and the final torque value established was 1547 N-m.

The bolt sizes used were M30 x 150 RC Lot # DH4DM300003 and the final torque value established was 1687

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N-m.

The bolt sizes used were M30 x 200 RC Lot # DH4DM300032 and the final torque value established was 1673 N-m.

The bolt sizes used were M30 x 200 RC Lot # DH4DM300033 and the final torque value established was 1553 N-m.

The bolt sizes used were M30 x 210 RC Lot # DH4DM300034 and the final torque value established was 1540 N-m.

The bolt sizes used were M30 x 220 RC Lot # DH4DM300015 and the final torque value established was 1607 N-m.

The bolt sizes used were M30 x 230 RC Lot # DH4DM300035 and the final torque value established was 1446 N-m.

The bolt sizes used were M30 x 260 RC Lot # DH4DM300036 and the final torque value established was 1680 N-m.

The bolt sizes used were M30 x 280 RC Lot # DH4DM300037 and the final torque value established was 1500 N-m.

The bolt sizes used were M30 x 320 RC Lot # DH4DM300039 and the final torque value established was 1573 N-m.

The bolt sizes used were M22 x 75 RC Lot # DH4DM220014 and the final torque value established was 473 N-m.

The Manual Torque wrench used was Serial No. XO2-747.

North Tower Lift 5 (Grillage) to West Tower Lift 5 (Grillage)

This QA Inspector witnessed final bolt tension verification on bolts connecting the North Tower Lift 5 (Grillage) to West Tower Lift 5 (Grillage) splice plate at Line E. Inspected the bolt tensioning on a random basis and found the tension to be in general compliance. Inspection was performed against the Notification No. 00609 Dated January 12, 2011.

The bolt sizes used were M30 x 130 RC Lot # DH4DM300030 and the final torque value established was 1587 N-m.

The bolt sizes used were M30 x 140 RC Lot # DH4DM300031 and the final torque value established was 1547 N-m.

The bolt sizes used were M30 x 150 RC Lot # DH4DM300003 and the final torque value established was 1687

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N-m.

The bolt sizes used were M30 x 200 RC Lot # DH4DM300032 and the final torque value established was 1673 N-m.

The bolt sizes used were M30 x 200 RC Lot # DH4DM300033 and the final torque value established was 1553 N-m.

The bolt sizes used were M30 x 210 RC Lot # DH4DM300034 and the final torque value established was 1540 N-m.

The bolt sizes used were M30 x 220 RC Lot # DH4DM300015 and the final torque value established was 1607 N-m.

The bolt sizes used were M30 x 230 RC Lot # DH4DM300035 and the final torque value established was 1446 N-m.

The bolt sizes used were M30 x 260 RC Lot # DH4DM300036 and the final torque value established was 1680 N-m.

The bolt sizes used were M30 x 280 RC Lot # DH4DM300037 and the final torque value established was 1500 N-m.

The bolt sizes used were M30 x 320 RC Lot # DH4DM300039 and the final torque value established was 1573 N-m.

The bolt sizes used were M22 x 75 RC Lot # DH4DM220014 and the final torque value established was 473 N-m.

The Manual Torque wrench used was Serial No. XO2-747.

East Tower Lift 5 (Grillage) to South Tower Lift 5 (Grillage)

This QA Inspector witnessed final bolt tension verification on bolts connecting the East Tower Lift 5 (Grillage) to South Tower Lift 5 (Grillage) splice plate at Line E. Inspected the bolt tensioning on a random basis and found the tension to be in general compliance. Inspection was performed against the Notification No. 00609 Dated January 12, 2011.

The bolt sizes used were M30 x 130 RC Lot # DH4DM300030 and the final torque value established was 1587 N-m.

The bolt sizes used were M30 x 140 RC Lot # DH4DM300031 and the final torque value established was 1547 N-m.

The bolt sizes used were M30 x 150 RC Lot # DH4DM300003 and the final torque value established was 1687

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N-m.

The bolt sizes used were M30 x 200 RC Lot # DH4DM300032 and the final torque value established was 1673 N-m.

The bolt sizes used were M30 x 200 RC Lot # DH4DM300033 and the final torque value established was 1553 N-m.

The bolt sizes used were M30 x 210 RC Lot # DH4DM300034 and the final torque value established was 1540 N-m.

The bolt sizes used were M30 x 220 RC Lot # DH4DM300015 and the final torque value established was 1607 N-m.

The bolt sizes used were M30 x 230 RC Lot # DH4DM300035 and the final torque value established was 1446 N-m.

The bolt sizes used were M30 x 260 RC Lot # DH4DM300036 and the final torque value established was 1680 N-m.

The bolt sizes used were M30 x 280 RC Lot # DH4DM300037 and the final torque value established was 1500 N-m.

The bolt sizes used were M30 x 320 RC Lot # DH4DM300039 and the final torque value established was 1573 N-m.

The bolt sizes used were M22 x 75 RC Lot # DH4DM220014 and the final torque value established was 473 N-m.

The Manual Torque wrench used was Serial No. XO2-747.

South Tower Lift 5 (Grillage) to West Tower Lift 5 (Grillage)

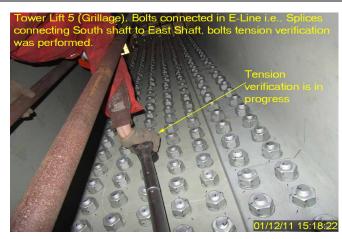
This QA Inspector witnessed final bolt tension verification on bolts connecting the South Tower Lift 5 (Grillage) to West Tower Lift 5 (Grillage) splice plate at Line A. Inspected partially the bolt tensioning on a random basis and found the tension is not in general compliance. Inspection was performed against the Notification No. 00609 Dated January 12, 2011.

Thus ZPMC QA Mr. Zhang Jia Di postponed the Inspection for tomorrow 0800 Hrs. Informed the Inspection outcome to Caltrans Lead Inspector Mr. Mark .J. Miller.

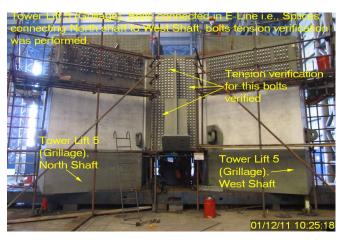
Unless otherwise noted, all work observed on this date appeared to generally comply with applicable contract documents.

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Summary of Conversations:

No relevant conversations were reported on this date.

Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Eric Tsang 150000422372, who represents the Office of Structural Materials for your project.

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Inspected By: Math, Manjunath Quality Assurance Inspector **Reviewed By:** Dsouza, Christopher QA Reviewer